



**Appendix**  
**Claims at Issue on Appeal**  
**U.S. Serial No. 09/557,804**

39. (Amended) A carboxymethyl cellulose ether prepared by a method comprising the steps of:

- (a) obtaining mercerized and recovered cellulose pulp; and
- (b) converting the mercerized and recovered cellulose pulp into carboxymethyl cellulose, wherein the mercerized cellulose pulp in step (a) was mercerized with a cellulose II mercerizing agent, and the mercerized and recovered cellulose pulp has a TAPPI 230 om-89 viscosity greater than 12 cP, when the cellulose pulp is southern softwood kraft.

60. The carboxymethyl cellulose ether of claim 39, wherein the mercerized and recovered cellulose pulp in step (a) is obtained by (i) mercerizing cellulose pulp, (ii) washing, neutralizing, or washing and neutralizing the mercerized cellulose pulp, and (iii) optionally, drying the mercerized cellulose pulp.

61. A carboxymethyl cellulose ether prepared by a method comprising the steps of:

- (a) mercerizing cellulose pulp with a cellulose II mercerizing agent;
- (b) washing, neutralizing, or neutralizing and washing the mercerized cellulose pulp from step (a); and
- (c) alkalating the mercerized cellulose pulp from step (b) to form an alkali cellulose; and

(d) etherifying the alkali cellulose to form the carboxymethyl cellulose, wherein the mercerized cellulose pulp formed in step (b) has a TAPPI 230 om-89 viscosity greater than 12 cP, when the cellulose pulp is southern softwood kraft.

62. The carboxymethyl cellulose ether of claim 60, wherein the cellulose pulp is a sulfite cellulose pulp.

63. A carboxymethyl cellulose ether prepared by a method comprising the steps of:

- (a) mercerizing cellulose pulp with a cellulose II mercerizing agent;
- (b) washing, neutralizing, or neutralizing and washing the mercerized cellulose pulp from step (a); and
- (c) alkalating the mercerized cellulose pulp from step (b) to form an alkali cellulose; and
- (d) etherifying the alkali cellulose to form the carboxymethyl cellulose,

wherein the mercerized cellulose pulp formed in step (b) has a TAPPI 230 om-89 viscosity greater than 12 cP when the cellulose pulp is southern softwood kraft; and

wherein the carboxymethyl cellulose has a solution viscosity in an aqueous solution consisting of 1 % by weight of the carboxymethyl cellulose as measured according to ASTM D 2196 of:

- (i) from about 60,000 to about 100,000 cP, when the cellulose pulp

is cotton linter pulp,

(ii) from about 1,000 to about 1,600 cP, when the cellulose pulp is softwood kraft pulp or hardwood kraft pulp, or

(iii) from about 1,800 to about 3,000 cP, when the cellulose pulp is wood pulp.